

## **The result of the treatment of atrial fibrillation using left atrial and biatrial or radiofrequency ablation procedures in patient's mitral valve surgery**

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### **Abstract**

Radiofrequency ablation is a method of atrial fibrillation treatment for. There are many publications on the effectiveness of this method, which sometimes include conflicting data. This paper presents a retrospective analysis of the treatment of mitral valve defects with the help of valve replacement and the use of RFA procedure for the recovery of permanent sinus rhythm in 131 patients. The ablation lines were laid with the help of ablaters along the LA posterior wall, the mouths of the pulmonary veins (PVM) and in the right atrium (RA) according to the interpretation of "Labyrinth - 4" procedure. Patients were divided into two groups: those having undergone left atrial RFA only - 97 patients (74%), and biatrial RFA - 34 patients (26%). Operation time including RFA procedure in the general group, on average, was extended only by  $13.5 \pm 1.3$  minutes, the exposure time for each line corresponded to the achievement of transmural myocardial damage, and repeated three times. Postoperatively, 11 (8.4%) complications occurred. A correlation analysis showed that neither the preoperational size nor volume of the left atrium affect postoperatively the AF induction. All patients in the postoperative period had a significant reduction in the LA size, thereby leveling the possibility of occurrence of AF. In our group, regardless of bilateral or left atrial RFA, sinus rhythm was restored in 71% and 91% of cases, respectively. After two years, 65% of patients had sinus rhythm in bilateral RFA and 78% - in left atrial RFA.

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### **Keywords**

Atrial fibrillation, Mitral valve, Radiofrequency ablation, Surgical treatment of AF